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LAKE CARRIERS' ASSOCIATION.

To consider and take action upon all general questions relating to the navigation and carrying business of the Great Lakes, maintain necessary shipping offices and in general to protect the common interests of Lake Carriers, and to improve the character of the service rendered to the public.

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EXTINCTION OF FIRE ABOARD SHIP.

Consul Liefeld, of Freiburg, March 13, 1901, sends the following article on extinction of fire on shipboard, taken from the Fire Call, a European journal devoted to the fire service:

Some experiments have been made at Bremen in connection with a new mode of extinguishing fires on board ship, invented by a Berlin chemist by the name of Gronwald. The objects aimed at and said to have been attained by the new system are: First, to give timely notice, by means of a special apparatus, of any fire which may break out in the hold of a ship; and, second, to promptly extinguish the same by pumping carbonic acid into the hold.

The official reports of the experiments may be summarized as follows:

Two piles of wood, in all about 4 cubic meters square, were built up in the forehold of a lighter. The large logs were mixed with smaller blocks of wood and a quantity of wood shavings soaked in petroleum. On the top of the piles of wood was spread about a fourth of a ton of coal, and in the hold was also placed an iron basket filled with coke heated to a perfect glow. The two piles of wood were set alight simultaneously at seven minutes past four in the afternoon. The fire developed quickly with the hatches open, and at twenty-one minutes past four the hatches were closed. Carbonic-acid gas was then pumped into the hold for twenty-one minutes, and ten minutes later the hatches were opened. The fire was found to be completely extinguished. The fire alarm worked perfectly, and the thermometer on deck showed the rise and fall of the temperature in the hold correctly. Later, another experiment was made under exactly the same conditions, except that steam instead of carbonic-acid gas was pumped into the hold after the fire had become well developed. On this occasion, the piles were lighted at ten minutes past nine in the morning, and the hatches were closed fifteen minutes later. Steam of 8 atmospheres, falling rapidly to 1.5 atmospheres, was then discharged into the hold through a hose pipe attached alternately to a couple of steam fire engines. This went on for thirty minutes, and the hatches were then taken off. The fire in the piles of wood was apparently extinguished, but there was yet so much life left in it that one of the piles blazed up again in seven minutes and the other in nine minutes. The fire in the basket of coke was quite out, but a few glimmering sparks remained among the ashes of the wood which had been used for lighting the coke.

Without pronouncing any opinion one way or the other respecting Herr Gronwald's system, suffice it to say that the only new feature in it appears to consist in his employment of carbonic-acid gas. What he claims is that when a fire breaks out in a ship's hold, if his system is followed the fire will be automatically announced on deck; it will be kept under observation from the deck and extinguished by operations carried out on the deck. His system consists in fitting pipes in every compartment of the vessel communicating with the deck, acting as safety valves, through which smoke and heated air may ascend to the deck in case of fire and give the alarm; further, thermometers and alarms may be lowered down these tubes, thus making it possible to watch the progress of a fire in the hold from the deck without either removing the hatches or entering the hold, and lastly (which is the principal feature of the system), down these pipes is pumped the carbonic-acid gas which will extinguish the fire. The gas can be forced among the cargo at any required pressure, and it will permeate everything, even tightly stowed cotton bales.

BRITISH COMMERCE.

A blue book issued by the British Government shows a small decline on British shipping—inward shipping by 2,619,242 tons and outward shipping by 2,903,600 tons—while foreign shipping increased inward by 2,482,113 tons and outward by 2,470,576 tons. The ships entering the ports of the United Kingdom last year were: British, 316,000, with a tonnage of 84,000,000; foreign, 36,646, with a tonnage of 20,000,000. The year previous the ships that entered the same ports were: British, 326,000, with a tonnage of 86,000,000; foreign, 33,678, with a tonnage of 18,000,000.

The number of ships built in Great Britain last year was 1,171, with a net register tonnage of 736,000. Twelve hundred and forty-five ships with a net tonnage of 749,000 were built in England during the previous year.

ERIE CANAL IMPROVEMENT.

Buffalo is co-operating with New York and all backers of canal improvements to secure a 1,000 ton barge waterway, according to George H. Raymond, Secretary of the Canal Enlargement Committee of the Buffalo Merchants' Exchange, who was in New York a day or two ago and conferred with local leaders of the canal compaign.

Speaking of the proposition for a ship canal which is being considered by the Canal Association of Greater New York, Mr. Raymond expressed the opinion that such a waterway would be absolutely impracticable. Even should such a waterway be constructed, he said, it would be almost impossible to navigate large ships upon it, for with a heavy wind they could not hold their course. Thev would necessarily have to move at a reduced speed, which would add to the cost of transportation. Such a canal, he thought, would not be used for ships, but rather by barges, say of 1,000 tons capacity, since the latter could be handled more easily and operated much more economically. The proposed 1,000 ton barge canal, he said, would meet all requirements.

THE United States has three sea-going training ships for the mercantile marine. Boston runs the Enterprise, New York the St. Mary's and Philadelphia the Saratoga. On board these ships the youngsters are well taught, clothed and fed. They find positions on board the mail steamers, which are compelled to carry a certain number of lads in order to earn the bounty.

PACIFIC COAST COMMERCE.

As a large portion of the Pacific Coast Commerce is tributary to the Lakes and is likely to greatly increase in the near future, we note with a great degree of interest the short talk recently given before the members of the Buffalo Merchants' Exchange by Capt. Charles Nelson, of San Francisco, upon the development of the commerce of the Pacific Ocean. Capt. Nelson was formerly president of the San Francisco Chamber of Commerce. He is a large ship owner and one of the most prominent and successful business men on the coast.

Capt. Nelson prefaced his remarks with a tribute to the Exposition and a compliment to the beauty of the city of Buffalo. "My purpose," said the speaker, "is to tell you something about the merchant marine as it existed between '40 and '60, the cause of its decay and the great future that awaits it in the development of the commerce of the Pacific Ocean." In those days, he said, American merchant vessels were touching at almost every known port in the world. He recalled his own experiences before the mast and spoke of the first line of steamships that plied the Atlantic. To the Civil War he attributed the downfall of the merchant marine, citing that in a single month over 40 whalers were destroyed in the Pacific Ocean.

"I view with disgrace," said Capt. Nelson, "that today the shipping of this country carried in foreign bottoms is $200,000,000 annually. In the Atlantic we have one great carrying line, but what is it compared to the innumerable lines controlled by foreign countries? Getting into the Pacific, Japan has a line to San Francisco, another to Seattle and another to Vancouver. England has two lines from Vancouver and there is a Norwegian line to San Francisco, while our own country has only one line running between San Francisco, China and Japan."

After sketching the growing importance of China and Japan, commercially, and referring to the boundless possibilities of our new possessions, Capt. Nelson declared that no conception could foretell the mighty growth of commerce in the Pacific in the next 25 years. He recalled the prophecy made by a prominent business man of the Empire State, who, after a trip around the world, declared that a great fight for the commercial supremacy of the world would be fought out in the Pacific Ocean in the next quarter of a century. Already, said Capt. Nelson, the docks at Seattle and Vancouver and to a lesser degree at San Francisco, are groaning under freight destined for Pacific Ocean trade. "At a great banquet in San Francisco that I attended a merchant was present who had bought 1,000,000 bales of cotton in Texas for shipment to Japan. Think of it, 1,000,000 bales of cotton!"

Capt. Nelson cited that our balance of trade was $700,000,000, and declared that although we pay higher wages and insurance, with a small bounty or a system of subsidy like that of foreign countries, a good profit could be made by American shipping.

Upon suggestion of Senator Henry W. Hill a vote of thanks was tendered Capt. Nelson for his instructive and entertaining address.

A LIBERAL SALVAGE AWARD.

The owners of the British steamer Karamania were awarded recently the sum of $20,500 for towing the steamer Dona Amelia into Lisbon, in December last. The Dona Amelia was on the voyage from New York to Lisbon, and had broken her shaft. The Karamania took her in tow on November 28 and reached port with her on December 3, after towing her a distance of 292 miles.

DETROIT.

Special Correspondence to the Marine Record.

Mr. A. A. Parker has taken up his residence for the summer at his Grande Pointe home.

John Gates, of Buffalo, 2nd mate of the Mariska, was killed at the "Soo" on Friday last owing to getting foul of the tow rope.

Pittman & Dean received a 1,000 ton coal cargo from Buffalo this week, freight 35 cents. The reason for mentioning this is, because it is about the only cargo of coal which has reached here from that port in a handful of years.

Judging from the couple of groundings this week, Toledo is not the safe port that the engineer at work there has cracked it up to be. From the undue publicity given to the harbor work during the last few years Toledo might have been thought to be the best port to enter on the south shore of Lake Erie, but it isn't.

Assistant Superintendent H. D. Rains, stationed at St. Mary's falls ship canal, filed charges against Supt. McKenzie and Foreman R. D. Ashmun, in which he alleges that McKenzie has been frequently in a semi intoxicated condition on the canal, that he gambles and uses unbecoming language. He alleges that Ashmun is guilty of gross neglect of duty.

The H. C. Frick is having a streak of bad luck, on her last trip down she struck on Ballard's reef and spent ten days in dry dock at Lorain for bottom repairs. Saturday she was hard and fast on the middle ground at Pelee Passage and the wrecker Saginaw loaded with laborers left here to lighter her coal cargo. She was on hard bottom and neaped two feet aft. She will be floated as early as possible.

The Yosemite Steamship Co., controlling the new 5,000 ton ore carrier which will be turned out by the Detroit Ship Building Co., ready for business Sept. 1, has been organized and will be incorporated within a few days. The officers of the new steamship company are: Truman H. Newberry, president; Cyrus Lothrop, vice-president; Henry P. Joy, treasurer; Philip H. McMillan, secretary and M. E. Farr, manager.

The steamer Hugamo, now building at the yards of the Detroit Ship Building Co. for the Hugamo Steamship Co., for the coast trade, will be launched in about six weeks. The owners of the Hugamo are H. F. Morley and others. As soon as the Hugamo is off the stocks the Detroit Ship Building Co. will lay the keels for three new side-wheel steamers, one for the White Star Line and two for the Detroit & Buffalo Transit Co. It is expected that the three new boats will be ready for service at the opening of next season.

Capt. Chris. Moore, although seventy-six years old, has shipped as mate on the little steamer Newsboy, running between Toledo and Monroe. He has, in former years, commanded many large steamers running out of Detroit and retired ten years ago. It is want that has sent him on the lakes again for he had none of it at home, wanted to wear his old clothes out. Anyway, who wouldn't sell a farm and go to sea? If Capt. Chris couldn't live it down after "swallowing the anchor" for ten years, he certainly deserves to be flat footing it around for another decennial period.

The Ossifrage is now carrying freight and passengers from Detroit and Windsor to the Georgian Bay district, having just begun the route this season. Mr. E. J. Travers, of the Algoma Central traffic department, said: "It is probable that next season there will be more boats running from Detroit to the Canadian and the Algoma district. The traffic in freight and passengers demands it, and the unsurpassed beauty of the scenery in the Georgian Bay district will make it a greater attraction to tourists every year. It is also necessary to get material of every kind up to the country to meet the demands of improvement in every line there. I believe that before many seasons the district will yield more first class ore than is now obtained on the American side, and Clergue, in my opinion, will rival the United States Steel Corporation in a few years. He will probably build a fleet of modern lake carriers of 5,000 tons, as the Paliki, Leafield, Theano and Monkshaven are getting too small for the business. We now have a contract to supply the Canadian government with 25,000 tons of steel rails for five years, and this shows that the idea of erecting a steel plant up at the "Soo" was a good one. There is more ore in the region, I believe, than can be exhausted in many years, and we expect to move 500,000 tons this year."

DULUTH-SUPERIOR.

Special Correspondence to the Marine Record.

Receipts of coal here from Buffalo last week amounted to 22,000 tons with the freight rate steady at 35 cents.

There was a total of 7,507,000 bushels of grain in store here at the beginning of the week, over 6,000,000 of which was composed of wheat and corn, the former exceeding the latter by about 1,000,000 bushels.

It is stated here that lumber from Ashland to Chicago slumped this week from $2.37½ to $2.25 and that a $2 rate will be the figure within a few days. It is said that all the dry lumber has been sent forward and rates drop each season from this cause.

Masters are registering a protest regarding the slowness of getting into action of the Duluth fog signal, and say that much better service is being rendered at Superior. This complaint will be brought to the attention of Commander Wilson, U. S. N., Light-house Inspector for the district.

Capt. Gaillard, Corps of Engineers, U. S. A., in charge of the conservancy and improvement of rivers and harbors of Lake Superior, in now requiring those engaged in raft towing to live up to the letter and spirit of the law. The regulations will be duly enforced until legislative action alters the present rules.

The abandoned steamer Preston has been picked up by the tug Innes, and is now in Port Caldwell, on the north shore of Lake Superior. The Preston was supposed to have sunk soon after the crew had been taken off by the Canadian Pacific steamer Athabasca, last Saturday. It seems she kept afloat and was found adrift twenty miles east of Huron Bay, by the Innes, thus proving a case of premature abandonment.

By deeds filed at the office of the register of deeds, West Superior, Wis., the Great Northern Railroad Co. is seen to be practically in control of the Superior Bay front for a distance of about three miles. The purchasing of the last lot by J. J. Hill means the starting of work on vast improvements the coming fall. The arrangements have been making for some time and a great deal of work will be done on the ice this winter. It is expected that work will soon be started on the passenger and coal docks. The plans include the largest merchandise dock in the world for the handling of the lake and Pacific Ocean trade.

June ore shipments show a gain over those for the corresponding month of 1900 of 223,343. The figures are as follows: Duluth and Iron Range, 870,000; Duluth, Mesaba and Northern, 629,579; Eastern Minnesota, 339,783; total, 1,839,362. For the corresponding month last year the record was Duluth and Iron Range, 624,000 tons; Duluth, Mesaba and Northern, 709,073 tons; Eastern Minnesota, 282,946 tons; total, 1,616,019 tons. For the corresponding month in 1899 the shipments were: Duluth and Iron Range, 600,000 tons; Duluth, Mesaba and Northern, 428,563 tons; Eastern Minnesota, 112,396 tons; total, 1,040,959 tons.

After making a careful canvass of the northwest territory, and preparing conservative estimates upon the conditions found throughout the grain belt, the traffic officials of the St. Paul, Northwestern, Northern Pacific, Great Northern and Burlington systems are agreed that the wheat crop of this region for 1901 will break all previous records. According to the estimates of these officials, it is claimed that the two Dakotas and Minnesota alone will harvest between 185,000,000 and 200,000,000 bushels of wheat, against 100,000,000 last year. The greatest previous yield of wheat in the three states named was in 1898, when 175,000,000 bushels were harvested.

The lands taken under working option from the Mesaba Iron Co. by the Bellitton Mountain Iron Co. comprise 9,000 acres, and extend for ten miles. The average width of the tract is one and one-half miles, but in places it is three miles wide. T. A. Merritt, a member of this company, said: "We have secured a working option for one year upon the payment of $1,000 cash. The purchase price is $300,000, or par for the capital stock of the Mesaba Iron Co. We shall at once proceed to explore the tract, and will put on not less than three diamond drills. We believe that the Oliver company explored too far north, and we think that we know where we can go to find ore."

BUFFALO.

Special Correspondence to The Marine Record.

Tuesday marked the least receipts of grain ex-lake of any day since the season opened.

Capt. Edward Maytham, formerly of the Maytham Towing Co., is seriously ill with appendicitis at his home. An operation has been performed and the chances for his recovery are considered good.

The general cargo boats (package freight lines) between this port and Chicago register a protest about the slow business owing to all rail competition and will lay up some of their tonnage unless both freight and cargoes greatly improve.

Nearly 65,000 tons coal was shipped last week, Chicago taking over 15,000 tons at 40 cents, though to north branch docks 50 cents was paid and the same figure to the smaller ports of Waukegan, Kenosha and Racine the first named taking 6,000 and the two latter 1,000 tons each.

The collision between the steamers S. S. Curry and A. A. Parker is proving very expensive. The Parker loss will be $16,000 and perhaps more, and the Curry may come out still worse. She is here repairing and will be out in a day or two. Quite a number of her plates have had to be taken off and replaced.

On her last trip down from Chicago the steamer Wilkesbarre brought 110,000 bushels of wheat and 100,000 bushels of corn. On her return up the lakes, after discharging her million dollar cargo of copper, the George A. Flagg carried over 4,000 tons of soft coal to the mines. This is the only large cargo of bituminous coal shipped from Chicago this season.

The North Land arrived here six hours late on Tuesday on account of one of the main engines becoming disabled on the passage from Cleveland to this port, repairs were made and she left here on time for the up trip. Nothing stops the train, like regularity of these sister ships, that is, no wind or weather conditions, but of course breakdowns are unavoidable.

A general dense fog bank, consequent strandings and heavy general average claims, is looked for by underwriters' agents to advertise the benefits of marine insurance and so that the assured can fly to the arms and pockets of the assurer, after previously swelling the insurer's bank account with good fat premiums, beeziness is wanted, you know.

East instead of West is the direction anthracite coal is moving these times, nor is Lake Ontario helping the consignees out much, if anything, so that western receipts are now nearly a quarter of a million tons behind their former record. Shippers are not placing anthracite in western storage and awaiting returns for 90 or 180 days, but are working more on a C. O. D. basis and this arrangement is being carried out on eastern consignments. Vessels are making no bones about the lack of up cargoes, but clear light, and the outlook is that coal will pay an adequate figure for its lake transportation later on in the season and just as it should do.

The number of lives lost through the fire last week in the Eastern elevator has been increased to four. Last night Peter Krotzinger of Fremont, Ohio, and John Corbett of Hartford, Conn., died at the hospital. The loss to the Lehigh Valley Transportation Co. from fire in the westbound freight house was placed at $70,000. One freight handler jumped into the canal to get away from the fire and was drowned. The Lehigh Valley line has two large storage warehouses which will be used for through freight, and the west-bound business will be cared for in the east-bound house. The steamer Hennepin was badly damaged. Second Engineer Cassin, of the steamer, was badly burned.

The traffic on the Erie canal at the Tonawanda ports during the month of June has been the largest recorded in years. The shipments of lumber and of pig iron have been unusually large. The rush of canal business has been so great that although many boats are badly in need of repair, their owners have found no time in which to get the necessary work done. The total number of feet of lumber shipped east by canal during the month of June was 28,188,286 feet, as compared with 20,719,029 feet, shipped during the corresponding month of 1900. The shipments for May were but 10,192,624 feet of lumber, only one-third of those for June. The total amount of pig iron sent east by the Tonawanda Iron and Steel Co. last month was 6,639,750 pounds, which is nearly double the amount shipped a year ago in June, when 3,546,450 pounds were shipped.

CLEVELAND.

Special Correspondence to The Marine Record.

Mr. M. A. Bradley is again at business, having perfectly recovered from his recent operation for appendicitis.

Any outsiders who may have idle capital to invest can now get in on the stock of some new steamers intended to be built and managed by men of experience.

The fleet now controlled by the steel corporation is being painted the uniform color formerly carried by the boats of the Pittsburg Steamship Co. (Carnegie fleet).

Conneaut is fast becoming a great ore receiving port. June receipts were a trifle over 589,000 tons, or more than 127,000 tons over the largest monthly receipts known.

The U. S. S. Cleveland will be presented with a $10,000 silver service, or a library, as a mark of recognition from the city which she has been named in honor of. This is customary in all cases.

The Chicago parties figuring on the purchase of the steamers Empire and Badger State, laid up at Lorain, have declared the deal off. These boats have always been well kept up and have good wholesome hulls, however the boilers may be.

The largest cargo of ore taken into Conneaut this year was carried on the John W. Gates this week, 7,113 tons. Several 7,000-ton cargoes have been received, but so far the record of 7,300 tons, made by the Gates last year, has not been touched.

An inquiry has reached me this week relative to placing an order for several thousand ash boat oars. I don't find any ore manufacturers advertising in the RECORD columns so therefore ask for the address of one or more manufacturers with a view to getting prices, time of delivery, etc.

Complaint is heard regarding the short distance that the light on the scow Smith and Post shows at Pelee Passage. Masters would do well to remember that this is but a private temporary aid to navigation and not a full fledged government light-ship, also that a little aid is better than none at all.

If life saving medals are in order Capt. Dahlke is certainly entitled to recognition. He has a record for life saving and rendering succour to the distressed second to no man on the river, and whatever tug is under his feet always seems to be at hand at the critical moment. He has been dabbling in saving life and property again this week.

Capt. George P. McKay has placed on her station the schooner Smith & Post, which will be used as a lightship at South-east shoal, Pelee Passage during the balance of the season. Much credit is due the timely action of the committee appointed by the Lake Carriers' Association in so promptly placing this absolutely necessary aid to navigation in Canadian waters.

Mr. John Craig, president of the Craig Ship Building Co., Toledo, visited this port a few days ago and ventured the information that his firm were figuring on contracts for the construction of new tonnage. The Craig Ship Building Co. are credited with turning out some high classed speedy vessels used in the passenger trade and also government departmental tonnage.

The following meteorological observations are furnished by the Office of the U. S. Weather Bureau for the week ending July 2: Prevailing wind directions during week South; highest volocity 34, west, July 1. Mean temperature for week 75, highest temperature 92, on June 30, July 1 and 2; lowest 66, June 30. Sunrise and sunset data, computed for local time at Cleveland, July 5, sun rises at 4:30, sets at 7:38; July 8, sun rises at 4:52, sets at 7:38; July 11, sun rises at 4:34, sets at 7:37.

Rather strange that the legal machinery should get tangled up regarding the apprehension and punishment of an Italian sailor on a British vessel committing an assault in American waters, outside of the three-mile limit. It appears, though, that the Ohio criminal law extends to the international boundary line and that any local J. P. had jurisdiction, or enough of it to issue a warrant for the arrest of the brawler. Wonder if it is necessary to run meridian lines out abreast of each county and parallel to the mid-lake international boundary line? There are no neutral waters on the lakes, every pint and point is national, unless what might momentarily sift through the dividing line is held unowned.

A steamer to Buffalo morning and evening is the schedule of the C. & B. line for the next few months, excepting Sundays, when only the evening boat will sail. Mr. Herman, the magician of the line, now posing as general passenger agent, has, at one fell swoop, and with his usual legerdemain attributes, cleared the hull of the City of Erie of the row of hog posts with which she was continually garnished. The illustrated card announcing the double daily service from each end of the route is the most interesting and shipshape notification ever issued by these line agents. The Erie, with a clean, clear side, shows her splendid lines and overlaps by a three-quarter length the handsome river steamer Tashmoo as a reminder that she won the race in the recent contest on Lake Erie.

CHICAGO.

Special Correspondence to The Marine Record.

Mr. Alex. Soper, Chicago, and M. J. Quinlan, of Menominee, have left for the Pacific coast to look over timber lands there.

The Edward Hines Lumber Co. has purchased a large quantity of hemlock, about 4,000,000 feet, from the Northwestern Lumber Co., Gladstone, Mich.

The stock of grain at Chicago at the beginning of the week was 14,414,000 bushels nearly 11,000,000 of which was wheat and corn and about equally divided.

One of the RECORD patrons has an opening for a first-class man in steam yacht construction and boat building. The firm is an excellent one and a competent man would meet with a fine position.

Marinette, Wis., is one of the busiest lumber shipping ports known to the Chicago market these times, several of the most prominent dealers visited there last week. Three million feet have just been shipped from there to Tonawanda.

The Williams Transportation Co. are figuring on adding to their South Haven route a speedy side-wheel steamer having a capacity for carrying 3000 passengers. Capt. Williams, the president of the company has for some time past been getting out specifications and data regarding the boat he wants.

The large steel steamer S. F. B. Morse, Capt. E. M. Smith, went sailing past South Chicago, on Tuesday with her consort the Roebling looking for an Indiana port of discharge. Capt. Smith, however, changed his mind, also the course of his floating iron ore warehouse, and in trying to double back on his tracks, grounded the big hull, steam was sent to his assistance, but he had piled himself up hard and fast and an army of laborers has been despatched to jettison or lighter cargo. The location may hereafter be chartered as iron ore shoal until a few cases of jettison comes along and transform it into a reef.

That is rather a peculiar report from Cleveland wherein it is stated that attorneys decided the United States authorities have no right to cause the arrest of a member of the crew of a foreign ship for a murderous assault on board a steamer in American waters in Lake Erie. The question was brought up when John Smithers, deck hand on the British steamer Paliki appeared at the United States district office and asked that a warrant be issued for the cook of the steamer, an Italian named Carabbi, who, he said, had attempted to take his life. The Paliki is of British register, and being outside of the three-mile limit at the time of the assault, it was found that Smithers had no legal redress within the United States and he must take the matter up with the Dominion of Canada. This is surely an all wrong rendering of the situation.

EXEMPT FROM VESSEL TAXATION.

Washington State leads California in protecting her shipping interests, as the following letter shows:

ROTHSCHILD & Co.
TACOMA, WASH., June 21, 1901.

Capt. J. J. Smith, San Francisco, Cal:

Dear Sir:—In re-exempting registered vessels from taxation: We beg to advise you that at the recent extraordinary session of the legislature, especially convened by the governor, a law was passed exempting vessels from taxation in this state. It reads as follows: Provided, that the ships or vessels registered in any customs house of the United States within the state, which ships or vessels are used exclusively in trade between this state and any of the islands, districts, territories, states of the United States, or foreign countries, shall not be listed for the purposes of or subject to taxation in this state, such vessels not being deemed property within the state.

Very truly yours,
ROTHSCHILD & Co.

It is reported that the Richelieu & Ontario Navigation Co. have let a contract to the Bertram Engine Works, Toronto, for the construction of another steel steamer for the Montreal and Quebec route. The boat will be the largest in the company's service, and is to be completed for the season of 1902.

FLOTSAM, JETSAM AND LAGAN.

The Cargill Coal Co., of Green Bay, has just closed a contract for 50,000 tons of coal to be delivered at its docks before navigation closes. The coal is for distribution in Wisconsin, Iowa and Minnesota, and is perhaps the largest single order ever given by a Green Bay firm. This quantity may be increased later on, depending in a large measure on the ability of the company to secure further orders and boats for transportation.

According to the Manitowoc Daily Herald, the builders of the new steamer Puritan, of the Graham & Morton fleet, have issued a standing challenge of $20,000 for a race with any steamer plying Lake Michigan, the Christopher Columbus, of the Goodrich Line, preferred. The Columbus is rated the fastest Lake Michigan steamer, but the Puritan gives promise of greater speed. It is not thought that the Goodrich officials will give consideration to the challenge.

IN the case of the trial of the American schooners Lily White and Doctor Sykes at Key West, seized by the revenue cutter McLane for smuggling, the court declared the former vessel, with her contraband cargo, forfeited to the Government, and fined the master of the Sykes $1,000. The trial of the crews has been postponed to the next term of the court on account of the absence of an important witness for the prosecution, one of the crew, who had turned State's evidence.

Contractor W. J. Hill, of Toronto, has secured from F. H. Clergue the contract for building two blast furnaces on the company's premises, between the steel plant and the Commercial dock. The furnaces will have a capacity of 600 tons per day and are to be completed about the end of the present year. About 250 men will be employed on the work of construction. Mr. Hill has not yet signed the contract, but will do so as soon as complete plans, etc., arrive from Cleveland. Work will be commenced almost immediately.—News, Sault Ste. Marie, Mich.

Another Viking ship, or rather boat, has been unearthed near Kiel; but this new discovery cannot compare in dimensions with the finest specimen of its kind, which may be seen by tourists at the museum in Christiania. In fact, this clinker-built Viking vessel, which is about the size of one of our modern fishing boats, is perhaps the most interesting thing to be seen in all Norway. Those who see it will realize for the first time why "starboard," or "steerboard" is applied to the right side of a vessel, as the helm protruded from this side, and not from the stern, which is practically the same as the bow. There is a popular impression that "Viking" is etymologically synonymous with the "Sea-King," but this is erroneous. The word is not "Vi-king," but "Vik-ing," or "bay-man." Its counterpart is found in such English place names as War-wick, Wick in Caithness, Scotland, and elsewhere.—Ex.

PISCICULTURE.

The state fish commission has distributed 141,244,000 spawn in the lakes and streams of Wisconsin this season according to the report of State Superintendent Nevins of the state fish hatcheries. Following are the kind and number of the young fish placed: Brook and brown trout fry, 1,520,000 rainbow trout fry, 865,000; wall-eyed pike fry, 76,900,000; muskellunge fry, 500,000; pickerel, 2,920,000; white fish; 37,500,000, and lake trout fry, 21,039,000.

Negligent Loading of Barge.—Respondent, who was a vessel owner and contractor for harbor work, with large experience in the transportation of stone for such work on scows, chartered a barge from libelant to be used for carrying stone. The barge was not constructed for such service, and had never been used for it, and no representations were made by libelant except as to its general good condition and the quantity of lumber it had carried, but it was taken by the charterer after a personal inspection. A large load of stone was placed on the barge, and it was safely towed from Chicago to Racine, where the master of the tug, relying on the fact that it was not so low in the water as stone scows when loaded to full capacity, put on an additional load, which, and perhaps because of the manner of loading, caused the barge to collapse, and it was wholly lost. Held, that no warranty by the owner could be implied of the fitness of the barge for the particular service required of it by the charterer, and especially that it was equivalent in capacity and structure to a stone scow, and that its loss must be attributed to the negligence of respondent or his agents in loading it without reference to its construction, which they knew, or could have ascertained by inspection. Lake Michigan Car. Ferry Transp. Co. vs. Crosby et al., 107 Fed. Rep. (U. S.) 723.

AMERICA'S MEDITERRANEAN.

The greatest of ancient civilizations—those of Egypt, Greece and Rome—were clustered around the shores of the Mediterranean—the "Great Sea," as it was termed by Biblical writers. The center of the industrial and commercial civilization of North America will eventually be on the shores of the Great Lakes. The business center of the United States is shifting westward. The Atlantic coast is losing its pre-eminence. The greatest line of traffic in the United States is along a narrow belt, following pretty closely the 41st paralled of north latitude and extending northward from this a half-degree or more. New York is its Atlantic terminus, and Buffalo, Cleveland, Toledo, Detroit and Chicago are the leading cities within it on the shores of the inland seas.

The rapid growth of these lake cities, the magnitude of the commerce on the lakes and its steady increase, the clustering of great industrial plants along the shores where the rail lines meet water transportation, all point to the conclusion foreshadowed above. The increase of manufacturing, the growth of urban population, is greater in this region than in any other in the United States. All the lake ports are thronged with shipping. More tonnage passes through the Detroit river in the seven months of open navigation than enters the harbors of London and Liverpool together in twelve months. The tonnage through Sault Ste. Marie canals during the season free from ice is far more than twice the annual total of the Suez canal, which is open the year round. And more than half the area tributary to the Great Lakes is yet undeveloped. Before the twentieth century closes the lake region will be the center of the industry and commerce of the United States.—Toledo Daily Blade.

HOW MR. CASSATT BUILT THE N. Y. P. & N.

(F. N. BARKSDALE IN THE WORLD'S WORK.)

The problem of transporting promptly and quickly the vegetables and fruits of the Maryland and Virginia peninsula, and the eastern section of Virginia, had long been unsolved. Norfolk was naturally the forwarding point and quick railway service had to be established with that city, in order that Philadelphia, New York and Boston might enjoy the delicacies of the upper South in the first blush of their ripeness. Railroad communication ended at Delmar just on the dividing line between Delaware and Maryland, ninety-five miles from Chesapeake Bay and Cape Charles.

Mr. Cassatt said to the late William L. Scott: "Let's build a railroad from Delmar to Cape Charles, and connect with Norfolk and Portsmouth by boat."

"Very good," replied Mr. Scott, "but how will you transfer your freight across Chesapeake Bay expeditiously?"

"We will build powerful and fast transfer tugs that will transport loaded trains across the bay."

"But the distance is thirty-six miles and the bay at times is rougher than the English Channel."

"We can build the boats strong enough and equip them with engines of sufficient power to make the run in three hours," calmly replied Mr. Cassatt.

This was the longest and most difficult ferry service that had ever been attempted, but with the boats constructed from Mr. Cassatt's designs it was accomplished, and the transfer ferry has been conveying in safety, and with promptness, loaded trains across the bay for nearly twenty years.

"THE policy of the Allied Powers in China seems to be 'Heads we win; Taels you lose.'—Southern Lumberman.

"Not quite right from the Chinaman's standpoint. It should be, 'Heads we lose; Taels you win.' "—H. B. C., of the West Coast and Puget Sound Lumberman.

Correct; but it is one of the rules that pans out the same any way you work it. There is an old story of a white man and an Indian going on a hunting trip with the understanding that what game they secured should be divided equally and fairly. They got only one turkey and one buzzard. The white man made this proposition, which seemed perfectly fair: "You can have first choice, Mr. Lo; you take the buzzard and I will take the turkey; or, if that doesn't suit, I'll take the turkey and you may have the buzzard." So the heathen will find when he takes a part in diplomacy that his Christian white brother knows some "ways that are dark and some tricks that are vain."—**Ex.**

A HUDSON BAY CO. BLOCK HOUSE—ORIGINAL "SOO" CANAL.

An object of great interest at the "Soo" is F. H. Clergue's residence. When he bought the old Hudson Bay station on the Canadian side of the river for a mill site, he determined to preserve all that would be of historical interest. In pursuance of this idea he has rebuilt the old block-house and uses it for his home. The stone walls of the block-house are those built by the Hudson Bay company more than 150 years ago. The old loopholes can be seen. The upper, or overhanging portion of the building, made of logs, had, of course, to be rebuilt. Its design is as nearly like the original as it was possible to make it. Of course the polished floors, Turkish rugs, brass beds, porcelain bath, telephone and other features of the interior are not relics of the Hudson Bay company's period. Mr. Clergue was able to locate the old stockade which surrounded the block-house, and has built a handsome wall of ribboned sandstone to mark the lines of the ancient compound. Within the enclosure pet bears and great St. Bernards disport themselves even as they very likely did upon the selfsame spot for the pleasure of the fur traders two centuries ago. Mr. Clergue has also found and preserved the first lock by which vessels were taken past the Soo rapids. It was built by the Hudson Bay company 150 years ago to enable the company's batteaux to come down from their trading trips along the shores of Lake Superior, and was only a little fellow, its total length being about forty feet.

EASTERN FREIGHTS.

Messrs. Funch, Edye & Co., New York, report the condition of the Eastern freight market as follows:

The amount of tonnage chartered for the carrying of grain has, during the present week, been on rather an extensive scale, but the rates secured do not show any material advance. There is, however, a firm undertone to the market generally and we anticipate some little improvement later on, especially for September and later loading. From the Gulf ports a number of grain charters have been effected and shippers are still in the market for further tonnage at the rates recently accepted. There has also been considerable business from the Gulf on the net form for general cargo, more particularly for October, November and December loading. Tonnage, however, appears to be offering plentifully on the basis of the present transactions. So far, there have not been any fixtures reported for cotton from the Atlantic seaboard for the coming season, but charterers are now about prepared to make commitments on the basis of about 38s 9d to 40s net register ton for vessels of good capacity. One or two coal charters have been made from this coast to the Mediterranean on the basis of 12s 6d per ton, but shippers are finding difficulty in getting other tonnage excepting at an increased rate. There are only a limited number of orders in the market for timber from the Gulf ports but owners do not respond freely to the rates offered. Time charter business is at present hard to consummate, owners having raised their ideas owing to the firmer tendency in freights generally.

In regard to sail tonnage we can only repeat what we have frequently stated during the last few weeks, viz.; that business remains quiet and rates are without perceptible change.

LITERARY NOTICES.

The World's Work for July covers its broad field in its usual concise way, laying stress throughout upon its self-stated doctrine of the doing of things. J. D. Whelpley writes of the relations of the United States with Canada, Sydney Brooks of the strength of the French Republic, Booker T. Washington of Hampton's great work in negro education, and E. P. Tolman of a striking industrial community in England which he calls a "trust for social betterment." Prof. Bailey, of Cornell, tells of the revolution in farming which the new teaching is making, and Earl Mayo of the picturesque and practical "Good Roads" train. Senator McLaurin gives a concise interpretation of the new industrial and political South, a theme and writer of particular interest at this time. Some really wonderful photographs of tropical fishes made by A. Radclyffe Dugmore are reproduced, and there are intimate sketches of President Cassatt, of the Pennsylvania Railroad, and of Governor Odell's executive career. Considerable space is given to Wall Street, apropos of the recent boom, corner and panic. S. A. Nelson describes the routine of Wall Street's machinery, Edwin LeFevre tells the story of James R. Keene's picturesque career, and Arthur Goodrich of a stock broker's day's work. The national movement toward an economical and regulated preservation of forests is explained by Gifford Pinchot, the Chief of the United States Forestry Bureau. Of the departments, The March of Events considers among other topics the Supreme Court decision, church creed revision, the labor troubles, and the problems in Cuba, China and elsewhere which the month has brought forth. The magazine's illustrations are a feature.

ANNUAL SHIPBUILDING RETURNS.

TREASURY DEPARTMENT, OFFICE OF THE COMMISSIONER OF NAVIGATION, June 30, 1901.

The Bureau of Navigation reports 1,173 sail and steam vessels of 401,285 gross tons built in the United States and officially numbered during the year ended June 30, 1901, as follows:

	WOOD.				STEEL.				TOTAL.	
	SAIL.		STEAM		SAIL.		STEAM.			
	No.	Gross.	No.	Gross.	No.	Gross.	No.	Gross.	No.	Gross.
Atlantic and Gulf	1160	74,721	212	11,999	12	13,752	51	90,476	735	190,948
Pacific	55	26,961	90	11,537	.....	.....	6	7,607	151	46,105
Great Lakes	8	158	46	5,124	5	11,236	46	136 620	105	153,138
Western Rivers	69	1,271	112	9,261	.....	.....	1	562	182	11,094
Total	592	103,111	460	37,921	17	24,988	104	235,265	1,173	401,285

During the corresponding year ended June 30, 1900, 1058 sail and steam vessels of 305,677 gross tons were built in the United States and officially numbered, as follows:

	WOOD.				STEEL				TOTAL	
	SAIL.		STEAM.		SAIL.		STEAM.			
	No.	Gross.	No.	Gross.	No.	Gross.	No.	Gross.	No.	Gross.
Atlantic and Gulf	484	64,510	160	11,834	8	9,760	63	74,472	715	160,576
Pacific	52	17,756	84	12,626	.....	.....	3	7,004	139	37,386
Great Lakes	7	68	41	4,693	.....	.....	25	95,015	73	99,776
Western Rivers	24	531	105	7,337	.....	.....	2	71	131	7,939
Total	567	82,865	390	36,490	8	9,760	93	176,562	1,058	305,677

Unrigged, June 30, 1900, —— vessels, 76,186 gross.
" June 30, 1901, 536 " 88,331 "

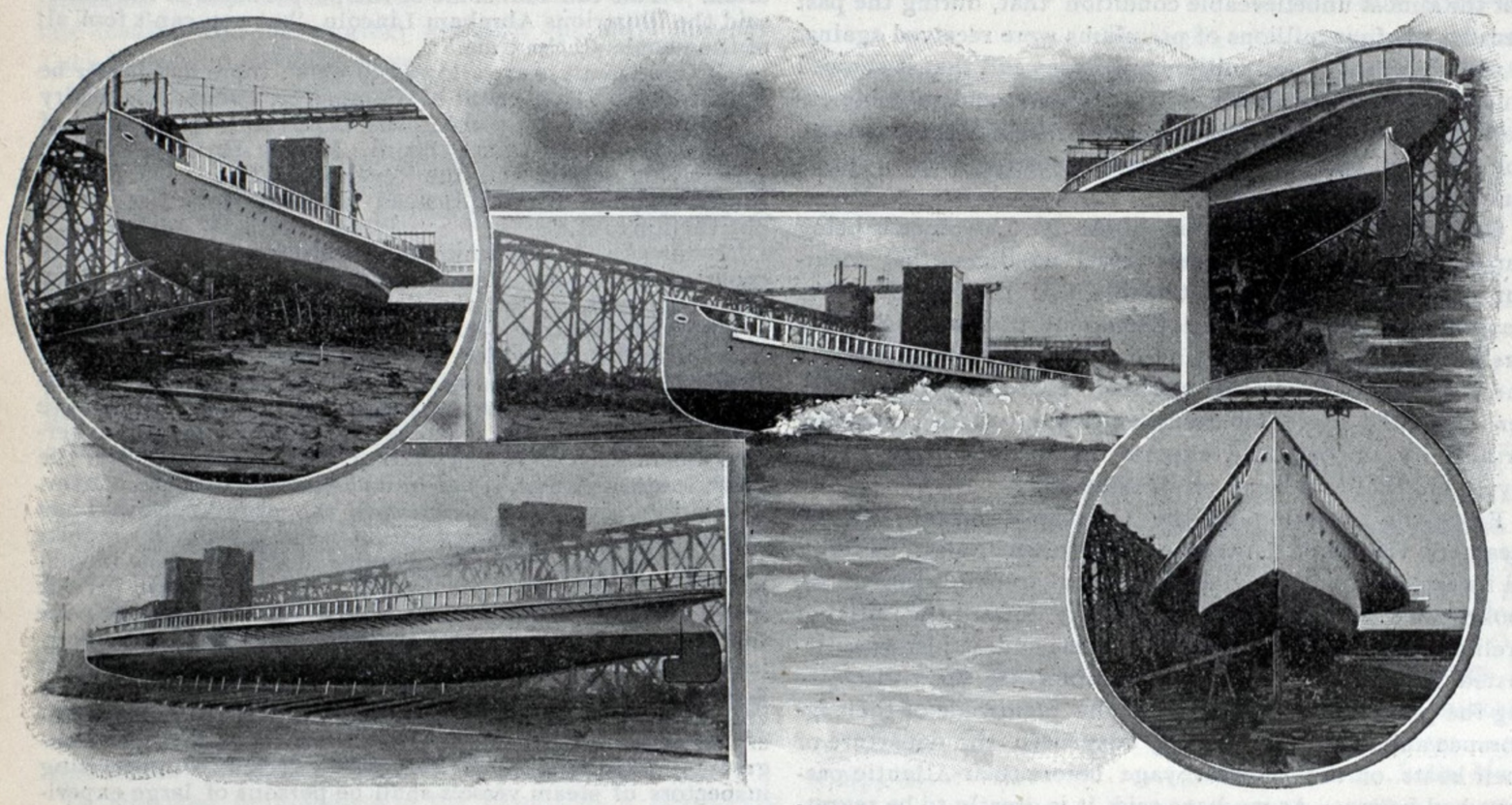
THE NEW STEEL STEAMER TASHMOO.

The river passenger steamer Tashmoo, as built for the White Star Line, is the speediest and most elegantly equipped river boat in the world, and being constructed exclusively for summer tourist travel, she has a lightness and beauty that cannot be obtained in any other class of vessel. The hull of the Tashmoo was built at the Wyandotte yards of the American Ship Building Co. in the summer and fall of 1899, and is made of Seimen's Martin mild steel throughout. She measures 320 feet in length and 70 feet in breadth at widest point. The engine is an inclined triple-expansion with cylinders 33½", 51" and 82" bore. The large cylinder is the largest on the Great Lakes, with stroke of 6 feet. Steam is supplied by seven boilers, 11 feet long and 11 feet in diameter, allowed a working pressure of 170 pounds. Steam steering gear is used, and the steamer is lighted with 800 electric lights, besides a powerful search-light.

The exterior of the Tashmoo upper works is, as usual, of pine, painted white. The interior is finished in hardwood cabinet work, quarter sawed oak being used on the main deck. Mahogany is used in the dining-room and grand saloon, and chestnut stained malichite is used in the smoking-room on the hurricane deck.

One particular feature of the Tashmoo especially worthy of note, is the number and size of the windows (all plate glass), which are so numerous and low that passengers can sit in the grand saloon, dining-room or smoking-room, and enjoy equally with those outside the unrivaled scenery through which the steamer is passing. The private parlors on the Tashmoo are provided with bay windows, and are very luxuriously furnished. The social hall of the Tashmoo is covered with an elegant design of inlaid rubber tiling. The dining-room and grand saloon floors are covered with the best Wilton carpet that could be bought. The furniture used throughout the steamer is nearly all mahogany, and the best and most elegant that could be found.

While the carrying capacity of the Tashmoo is four thousand passengers, license for three thousand only, is applied for, thus guaranteeing ample room for all.



LAUNCH OF THE TASHMOO, DECEMBER 31, 1899.

Views of the steel steamer Tashmoo, owned by the White Star Line, Detroit, in service between Detroit and Port Huron. The speediest river steamer afloat.

MARINE PATENTS.

Patents issued June 25, 1901. Reported especially for the MARINE RECORD. We furnish complete copies of patents at the rate of 10 cents each.

676,889. Means for preventing breaking of propeller shaft, Francesco M. Gasparini, Venice, Italy.

676,900. Propeller, Isador Lehman, Cleveland, Ohio.

676,926. Apparatus for cleaning hulls of vessels, Major A. Stump and Asa L. Stump, Normantown, W. Va.

676,986. Method of building ships, Alexander Lambie, Port Glasgow, Scotland.

677,020. Ship's log, John C. Coombs and Arthur N. McGray, Boston, Mass.

677,101. Propeller for vessels, Henry V. B. Parker, San Francisco, Cal.

676,738. Electrically-propelled boat, W. B. Edwards, Weybridge, England.

676,820. Apparatus for locating sunken vessels, Simon Lake, New York, N. Y.

SHIPBUILDING IN THE UNITED STATES.

MERCANTILE MARINE

Vessels built in the United States and officially numbered by the Bureau of Navigation during the fiscal year ended June 30, 1901, number 1,173 of 401,285 gross tons, compared with 1,058 of 305,677 gross tons for the previous fiscal year. Unrigged barges, canal boats, etc., will add 88,331 tons to this total. Such construction the previous year aggregated 76,186 tons. The whole tonnage built has been exceeded only twice in our history, in 1854, and in 1855 when the maximum 583,450 tons, was attained.

Excluding unrigged barges and canal boats, ¾ of the new tonnage is comprised in 111 vessels, each of over 1,000 gross tons. To these large vessels the Great Lakes, where steel shipbuilding in the past few years has been highly developed, contributed 40 steel steamers of 137,312 tons. This tonnage exceeds the steel steam product of the entire United States for any year before 1899. The industry of building small steel steamers on the lakes for the seaboard has developed considerably during the year, but as the length of the canal locks through which they have to pass to reach the coast is only 270 feet, this construction does not materially affect salt water navigation.

The ocean steel steamers built on the seaboard were 15 of 70,667 gross tons, to which may be added 9 of 18,888 tons, all small, built on the Great Lakes for salt water traffic. The principal ocean steamers were the three Spreckel's mail steamers of 18,495 tons for the San Francisco, Honolulu Australian mail service, three New York and Cuba mail steamers of 15,408 tons and one Venezuela Red D steamer of 1,713 tons all built under the Ocean Mail Act of 1891. The remaining steel steamers are for the coasting trade, including three Hawaiian-American steamers of 16,785 tons, and 4 Chicago steamers of 8,628 tons temporarily in the trans Atlantic trade.

During the calendar year 1900, Great Britain launched 664 steel steamers of 1,432,600 tons, and Germany completed 63 of 213,984 tons, nearly all of which were for ocean trade.

Wooden schooners, the third important item, numbered 22 of 40,273 tons. The limit of size for these vessels appears to have been attained, and large steel schooners will be built next year. Rigged barges, some of steel and some for the Cuban trade numbered 15 of 24,313 tons. 9 steel ferry-boats and steam dredges of 13,907 tons were built, and 6 square-rigged vessels of 11,257 tons. Only 4 wooden steamers aggregating 6,552 tons, exceed 1,000 tons, though 460 wooden steamers of 37,921 tons were built. Wooden sail and steam vessels number 1,052 of 141,032 tons.

Geographically vessels were built as follows: Atlantic coast 735 of 190,948 tons; Great Lakes 105 of 153,138 tons; Pacific coast 151 of 46,105 tons, and western rivers 182 of 11,094 tons. Increase over last year on Great Lakes 53,362 tons, Atlantic coast 30,372 tons.

THE H. W. Johns Manufacturing Co. has recently secured the contract for covering the cylinders, pipes and receiver at the Edison Portland Cement Co., Stewartsville, N. J., for the account of Allis Chalmers Co., successors to E. P. Allis & Co., Liberty Street, New York City.

SHIPPING AND MARINE JUDICIAL DECISIONS.

(COLLABORATED SPECIALLY FOR THE MARINE RECORD.)

Collision—Tug and Moored Vessel.—A tug boat lay for an hour and a quarter in a stream. At the end of the next pier was a canal boat, with her tow projecting into the slip. The tug thereafter backed out into the river and proceeded under acquired headway until she saw the canal boat, when she reversed her engine, but still went forward and struck the canal boat. Held, that she was distinctly liable, and should pay for the injury resulting therefrom. The Valvoline, 107 Fed. Rep. (U. S.) 752.

Delay in Unloading Vessel.—Where a contract of shipment requires the canal boat to be brought to the dock of the consignee, and requires the payment of a certain sum per day as a demurrage on the failure of the consignee to unload within three days, the removal of the boat from the consignee's dock within the three days by the public authorities, caused by the temporary closing of the canal, will prevent a recovery of demurrage for the time the boat is prevented from returning to the dock. Gabler vs. McChesney, 70 N. Y. Supp. 191.

Construction and Validity.—A provision of a bill of lading that the shipowner is not to be liable for any claim, "notice of which is not given before the removal of the goods," properly construed, does not require such notice to be given before the goods are taken from the ship, but before their removal from the dock where they are deposited by the ship, and where, after they are released from the ship's tackle, they may be inspected and examined, both by the consignees and the officers of the ship. So construed, such provision is reasonable and valid. The St. Hubert, 107 Fed. Rep. (U. S.) 727.

Maritime Liens—Repairs—Contract with Supposed Owners.—One making repairs on a vessel in a foreign port upon the order of a supposed resident corporation, which claimed to be the owner, but was in fact a charterer without the authority under its charter to incumber the vessel, cannot claim a lien for such repairs unless there is affirmative evidence showing that the credit of the ship was pledged; and, where no formal contract was made, his bare statement that the work was done on the credit of the ship is not, alone, sufficient to establish such pledge. The Roanoke, 107 Fed. Rep. (U. S.) 743.

Contracts—Construction—Intent of Parties—Rental of Personal Property—Wrecking Outfit.—Where defendant contracted to pay plaintiff three-quarters of a cent per pound per month for the use of chain belonging to a wrecking apparatus from the time the chain was taken until it was returned, and the contract further provided that all the apparatus should be returned by a certain date, defendant was liable for the stipulated rental until the property was returned, and not merely for rent to the time fixed for return, and damages for the failure to return at that time. McMorran vs. Hall, 85 N. W. Rep. (Mich.) 1108.

Maritime Liens—Supplies and Repairs Furnished to Owner—Implied Agreement for Lien.—Under the rule that, where repairs are ordered in a foreign port by the owner, there must be some affirmative evidence to show that the credit of the ship was pledged as security for payment, to entitle the repairer to a lien, is not essential that such evidence should show an agreement for a lien in express words, but facts and circumstances which justify the inference that there was a common understanding that the ship would be bound establish an implied agreement for a lien, and are sufficient. The Newport et al., 107 Fed. Rep. (U. S.) 744.

Shipping—Damage to Cargo—Condition of Billof Lading Requiring Notice of Claim.—A provision of a bill of lading that "the shipowner is not to be liable * * * for any claim, notice of which is not given before the removal of the goods," imposes a reasonable and valid condition precedent to the right to maintain a suit for damage to the goods in shipment, either against the shipowner personally or in rem; and a failure to comply with such condition is not excused by the fact that the ship had knowledge of the damage, the purpose of the requirement being to advise the owners that they are charged with liability therefor. The St. Hubert, 107 Fed. Rep. (U. S.) 727.

Sufficiency of Evidence.—Repairs and supplies were furnished by the several libelants for a dredge, and scows used in connection therewith. The ownership of the vessels was doubtful. They were unregistered, and bore no indicia of their home port. The parties in possession, and at whose instance the repairs were made and the supplies furnished, had been known for years to be irresponsible, and were without credit than could be obtained on the vessels. It further appeared that libelants relied upon the credit of the boats, and that the parties with whom they contracted so understood, and both at the time and subsequent recognized their right to liens, and advised their enforcement after the vessels had been libeled by others. Held, that such evidence was sufficient to establish a common understanding that the credit of the vessels was pledged, and to sustain the claims of libelants to liens, although there was no agreement therefor in express words. The Newport et al., 107 Fed. Rep. (U. S.) 744.

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CLEVELAND, O., JULY 4, 1901.

DESIRING that our staff should enjoy the commemoration of the glorious 4th, we go to press one day earlier than usual.

THE landing, last week, of all the passengers from the wrecked British steamer, Lusitania, lost on the south-east point of Newfoundland, is an object lesson, which ought not to be lost sight of. In this case, the crew had hundreds of piratical, ignorant, low-lived Italians to handle, bent on having their own way, they out dirk to carry their point. They eventually remained on board until all the women and children were landed, that's all, but we always want to see the lesson well repeated.

IT is the general assumption that too much tooting is worse than too little, as witness the collision a day or two ago between a Gloucester, Mass., fisherman and the U. S. S. Massachusetts. The master of the fishing schooner did not blame the battleship, but instead praised the officers and crew for the prompt assistance which they gave him after the collision, and, in extenuation of the fault, says that the accident occurred in a dense fog and in spite of the fact that both vessels were sounding frequent warnings. To our mind, the battleship would have been less dangerous if she had sounded at less frequent intervals, so as to catch the sound of the fisherman's horn, thereby keeping clear of collision. But there, perhaps, she was on her nor-west course and had to maintain it for fear that she would lose her bearings should any change be ordered.

BARGE towing has developed so miraculously immensely that enthusiasts are now, in imagination, yanking a string of them across the Western Ocean, and eventually establishing a permanently successful trade in the use of trans-Atlantic tow barges. Well! who is to say such a trade cannot be brought about, the wildest imaginings of to-day appear to be but the ordinary accomplishment of the morrow. It could hardly be said that a fellow's trolley was off, even if he suggested an overhead or a submarine guider for a connection. However, old Atlantic travelers are at one in stating that the best possible class of tonnage sometimes meets with all the weather that can be taken care of. Yet, and for all, moreover and notwithstanding, even a hull has been known to drift across the North Atlantic, and does not history relate how the keen dollar-grabbing down-easter sold all his spars at a fabulous figure, placed his schooner in the track of the Gulf stream and safely, though leisurely, delivered his cargo to his consignees as per charter party and according to the nomination as certified in his bills of lading? The entire procedure just resolves itself into the act that all things are possible.

THE ST. LAWRENCE ROUTE.

The character maintained regarding the navigation of the Gulf of St. Lawrence and its approaches is anything but assuring when considering the important developments necessary to insure a highway for waterborne traffic from the lakes to the coast, and thence to the sea.

The series of recent disasters attributable to Gulf traffic is not only regretable from the standpoint of present losses, etc, but it is discouraging for the eventual success of future floating path-finders to whom may be entrusted a due share of national or international commerce.

It is not a pleasant record to chronicle the stranding and loss of a list of steamers such as the Lucerne, Ashanti Aggi, Zanzibar, Lusitania, Armenia and Assyrian, with the score of other minor and St. Lawrence river casualties occurring during the early part of this season. These vessels were under the guidance of skillful, experienced men, who wouldn't, even if they could, shift the blame on to other shoulders, or plead extenuating circumstances, as an off-set for their mishaps, hence, the bare fact exists, as emphasized each season, that, the North American trade, and particularly the St. Lawrence gulf and river, is the most dangerous to shipping in the known world.

On the opening of navigation, this season, energetic and well advised efforts were made to secure lower rates of insurance for the Gulf trade, notwithstanding old line underwriters assured would be policy holders that the premiums asked were only commensurate with and proportionate to the risks taken by the assurers and they furthermore pointed out the almost unbelieveable condition that, during the past decade, but four millions of premiums were received against a disbursement of ten millions of losses and that it showed considerable grit coupled with expensive and valuable experience for the older companies to entertain insurance on the river and gulf traffic even at the soaring rates of insurance scheduled.

Granted that the navigation of the St. Lawrence is being carried on by duly competent vessel handlers, that insurance, though high, is obtainable, and that the Canadian government has done and is doing all that is possible for the safe navigation of shipping. The query arises, whether the Canadian outlet to the coast will ever attain the character of a safe route for trans-continental traffic, meaning principally imports and exports, as distinct from exclusively internal commerce or all rail traffic.

From the inception of the Chicago-European line of steamers, via the St. Lawrence route, to what might be termed its actual, if only partially successful accomplishment, we looked with some degree of curiosity toward the initial or preliminary outcome. The result was and is just as anticipated, couldn't, in fact, have been otherwise, notwithstanding the promoters of the line in the plentitude of their ignorance and simplicity, widely advertised the departure of their boats on the return voyage before their Atlantic passage had begun. As we have said, it is greatly to be regretted that the Canadian waterway to the coast has been weighed, weighed many times over, only finally to be found wanting in the absolute requirements of a commercial waterway, and this too with all the modern resources of science, engineering and navigation taxed almost to the utmost limit of practicable safeguards.

It is quite true that the St. Lawrence gulf and river has been open to navigation each summer during the past century, that old, low classed, unwieldly hulls have been moved successfully under canvas over every possible foot of ground between Anticosti and Quebec, that the French-Canadian, St. Lawrence pilots have been treated more in jest than in earnest and kept on board more as a nominal necessity than a practical helpmate or assistant in so far as the vessels' safety was concerned and this appears to be the limit to which the commerce of the St. Lawrence must be kept at, or may aspire to, as long as the natural element of fog predominates as the ruler of waterborne traffic.

Canada ought to make a Dominion day of it every day on the St. Lawrence, during the navigation season, varied by an occasional characteristic 4th of July, to be observed from Newfoundland to Montreal; by this means and with the aid of wireless telegraphy and several aerial phones phonetic, vessels would not get beached until they knew where they were going.

ENGLAND and Belgium are shipping steel rails to Canada while the United States is shipping steel plates to Ireland, for shipbuilding purposes.

THE U. S. STEAMBOAT INSPECTION SERVICE.

The MARINE RECORD is not alone in pointing out the unstable, vacillating rulings and technical idiosyncracies indulged in by the Steamboat Inspection Service.

The New York American Shipbuilder in a three column editorial, treating on the recent ferry-boat collisions and disasters in that harbor, very pertinently takes the department to task for a portion of its shortcomings, and from present indications the result will likely be that the municipality will instruct its Harbor Commissioners to see that all local tonnage, especially ferry-boats, are kept in serviceable order and condition irrespective of the steamboat inspectors farcical certificates.

The present aspect of the service looks as if it is to be ignored in the harbors, reviled on the rivers, made a burlesque of on the lakes and utterly condemned in its coast and ocean retrograde assumptiveness.

An excerpt or two from the Shipbuilder's trenchant editorial may give a view point of the department as observed in New York.

"We have given frequent warning of and have as often frequently pleaded for a better enforcement of the present rules and regulations governing steam vessels and also for a revision of those statutes relating thereto that are impracticable. To all these pleadings in the interest of humanity the Steamboat Inspection Service has turned a deaf ear. That branch of the government was content to abide by the existing evil, but after so serious an accident as that of the 14th inst. and precious lives are lost, and men, women and children are maimed, probably for life, it is not the time to attempt dodging responsibilities. That has been done too often. 'You can fool some of the people some of the time,' said the illustrious Abraham Lincoln, 'but you can't fool all of the people all the time.' "

"If these matters are allowed to exist, there had better be established a Department of Commerce, under a Secretary of Commerce. Then place in that department the Bureau of Navigation, Light-House Board, Marine Hospital Service, Life Saving Service and the Revenue Marine. The Steamboat Inspection Service, instead of aiding commerce is an obstruction to it."

"It may be, as a prominent ex-local inspector of hulls is reported to have said, because 'there are many capable men connected with it, but the Service generally is worthless. It is so honeycombed with politics, for one thing, as to destroy the usefulness which it might otherwise have, while it is governed by laws many of which were adapted to conditions which existed twenty years or more, but which have since entirely changed. If ever a branch of the public service was in need of reorganization, this is one, and with the great interests which it has in its keeping, the work of reorganization could not commence too soon.' Now when boiler insurance companies do not issue policies on reports of the Steamboat Inspection Service, doesn't it show incompetency on the part of the latter? Should not that Service instead of inspecting be inspected? The statutes provide that a 'supervising inspector shall be selected for his knowledge, skill and practical experience in the uses of steam for navigation and shall be a competent judge of the character and qualities of steam vessels and of all parts of the machinery employed on steamers.' It thus seems clear that Congress intended that the persons to be selected for supervising inspectors of steam vessels shall be persons of large experience as master, pilot or engineer of steam vessels, or persons of eminence in the designing and construction of steam vessels, their boilers and machinery."

Finally the American Shipbuilder says: "We ask again of what use is the Steamboat Inspection Service if its rules and regulations are not enforced?" To which we reply, for safety sake lead us not into temptation. If those laws, their laws, were to be enforced, we would be in the position of the distressed sailor who had "hell to pay and no pitch hot."

ASHTABULA'S COMMERCE.

The Custom-House report for the month of June at Ashtabula shows that 27,448 tons less of ore were handled than during June last year. The number of tons of ore received was 656,435. In addition to this amount there were 9,672 tons of ore received from the new ore districts of Michipicoten. The total amount of coal shipped during June was 127,282 tons coastwise and 2,519 tons to foreign ports. The coal shipments also show a remarkable decrease over a year ago. The total number of arrivals in June was 220 coastwise and six foreign. The total clearances were 222 coastwise and 6 foreign. A year ago there were 225,929 tons of coal shipped and 683,883 tons of ore received. A scarcity of cars on the connecting railroads is largely responsible for the decreased coal shipments.

IN noting the raft of contracts for new tonnage placed with the American Ship Building Co., it is quite in order to state that the several other yards have also a brisk outlook before them and that their orders are only limited to the capacity of their plants.

CONTRACTS FOR NEW LAKE TONNAGE.

Apropos of the new contracts for lake tonnage which have developed within the last couple of days, we had the pleasure of making the following statement last month:

"Optimist or pessimist may argue about the present and future outlook as regards the output from lake shipyards, but the practical effect is an everyday witness of the prosperity of this line of industry. Lake shipbuilding has always been, is now, and will so continue in the future, to be one of the kings in the ranks of industrial progression and commercial advancement. Furthermore, the brisk construction and mechanical output will but parallel the enormous and steadily increasing lake-borne traffic, which the annual array of statistics so clearly places before the average interested reader."

As if to further enhance the foregoing expression the Cleveland correspondent of the MARINE RECORD noted as follows: "There will be no cessation in the briskness of shipbuilding as inquiries for intended new tonnage are quite regular. It is learned that figures have been asked for about 60,000 tons of plates and shapes for fall delivery at lake shipyards."

Since the circulation of the above The American Shipbuilding Co. has closed contracts for vessels that will cost about $1,250,000. The order, which was placed by Mr. J. C. Gilchrist, for a Cleveland syndicate, is for five 400 foot steamers that will carry about 5,600 tons, making a capacity for the five boats per trip 28,000 tons. The new boats will be the largest in the fleet of sixty vessels, managed by J. C. Gilchrist. They will have eleven hatches to further facilitate loading and discharging, which is one more than the Lake Shore and Gilchrist have.

The general hull dimensions of the new steamers will be 400 feet over all, 380 feet keel, 50 feet beam and 28 feet deep. They will have triple-expansion engines with cylinders 22, 35 and 58 inches with 42 inch stroke, fitted with the Howden hot air system and two Scotch type boilers each 13 feet in diameter and 12 feet long. The new boats, which will cost $250,000 apiece will be ready for delivery at the opening of navigation in 1902. Three of the steamers will be built at Lorain and the keels for the other two will be put down at South Chicago. This addition to the Gilchrist fleet makes a total of 64 vessels, composed of 16 steel steamers and 48 wooden steamers and consorts.

Several other Cleveland parties are figuring on building and the indications are that all the berths in the different plants of the American Ship Building Co. will be taken before the close of the season. It is understood that some of the firms that had fleets that were turned over to the steel corporation have asked for figures on new tonnage.

The American Ship Building Co. now has ten freight steamers and two passenger steamers under construction. One of the freighters will be turned over to her owners late this season but all the others are for 1902 delivery.

A still later development is the news that a Milwaukee syndicate, at the head of which is H. J. Pauly, is in the market for two new steel steamers for the bulk cargo trade and to cost about $175,000 each, although this contract, like several others on which figures have been asked, is not yet completed.

It is also stated that The Williams Transportation Co., Chicago, would close a contract for a passenger steamer to cost at least $350,000, as soon as the machinists' labor troubles at the shipyards have been settled. The new boat is intended for the South Haven route and will be ready for service next spring. In type she will be a side-wheeler, 325 feet long and the contract will call for a speed of 20 miles per hour. The boat will have an excursion capacity of 3,000 passengers.

NOTICE TO VESSELMEN AND OTHERS.

TOLEDO HARBOR, OHIO.—All persons are warned not to interfere with stakes and buoys. A row of stakes or other marks has been, or will be, placed near each side of the straight channel, Toledo harbor, Ohio, and will be maintained during the periods required for dredging. Interference with such marks is prohibited by law.

Special attention is invited to the outer stakes, beyond the can-buoys, where the natural depths are from twelve to twenty-one feet. A light will be shown on the outer stake of each line (or row) from sunset to sunrise.

Masters and pilots are requested to avoid the risk of injuring or displacing the marks, by keeping in the straight channel throughout its entire length. A penalty for interfering with these stakes is provided by law, and will be enforced, if necessary to protect them.

DAN C. KINGMAN,
Major, Corps of Engineers, U. S. A.

Cleveland, Ohio, June 27, 1901.

LAKE FREIGHTS

The general conditions existing last week still hold, there is detention experienced at ore loading and discharging ports. Grain chartering light with freight rates not any too firm, a lack of briskness in anthracite coal shipments, and lumber shippers doing their level best to keep the Lake Superior rate down to $2.25 per M. feet with occasional success, according to their own showing. We quote:

Iron Ore—Without change from last week's quotations, and as per opening season rates for present charters, viz. 60, 70 and 80 cents to Lake Erie ports from Escanaba, Marquette and Duluth respectively. The delay in discharging owing to a cessation of work on the 4th, will tend to bunch tonnage at Ohio ports for a week to come.

Grain—With the chartering ahead for September loading, Lake Superior, as noted last week, the grain freight market has shown only an occasional charter. Chicago quotations are 1⅜ cents on corn and 1½ cents on wheat to Buffalo, taken chiefly by the regular line boats. As an indication of the trade, it is noted that less grain reached Buffalo ex lake on Tuesday last than on any day since the opening of navigation. Milwaukee paid 1¼ cents on corn to Buffalo and 1 cent on oats to Midland.

Coal—A block of 50,000 tons charteerd ahead for Milwaukee, to run up to the end of October, at 50 cents, marked the 10 cent raise looked for, but not maintained on immediate charters. The general rate is 40 cents, Lake Michigan, and 35 cents to the head of the lakes, with shipments of bituminous quite brisk from Ohio ports. A strong eastward movement is noted at Buffalo and when the shipments turn west, freight rates are likely to advance, just as Buffalo led the market last season. At present vessels are clearing light and not seeking coal cargoes, so there is no question of cutting the present rate.

Lumber—The contest over 25 cents per M. feet is still felt and a special from Duluth says that vessel agents declare that if the Cleveland lumbermen hold a meeting and attempt to force down lumber rates from $2 50 to $2.25 vessel owners will give that port a wide berth in chartering. There is a good demand all around for boats, they assert, and vessels will have no trouble in finding cargo at other ports. On the other hand it can be said that $2.25 is the quoted rate.

MONTHLY SHIPBUILDING RETURNS.

TREASURY DEPARTMENT, OFFICE OF THE COMMISSIONER OF NAVIGATION, June 30, 1901.

The Bureau of Navigation reports 149 vessels of 41,496 gross tons were built in the United States and officially numbered during the month of June, 1901, as follows:

	WOOD.				STEEL.				TOTAL.	
	SAIL.		STEAM.		SAIL.		STEAM.			
	No.	Gross.	No.	Gross.	No.	Gross.	No.	Gross.	No.	Gross.
Atlantic and Gulf	46	5,720	37	1,685	3	3,432	9	10,226	95	21,063
Pacific	5	2,970	11	1,493	.....	.....	.....	.....	16	4,463
Great Lakes	2	42	6	300	.....	.....	4	14,863	12	15,205
Western Rivers	12	217	14	548	.....	.....	.....	.....	26	765
Total	65	8,949	68	4,026	3	3,432	13	25,089	149	41,496

The largest steel steam vessels included in these figures are:

Name.	Gross Tons.	Where Built.	Owner.
North Star	3,159	Chester, Pa.	Delaware River Iron S. Bldg. and E. Wks.
Gilchrist	3,871	W. Bay City, Mich.	W. Bay City Shipbuilding Co.
Frank H. Peavey	5,002	Lorain, O.	American Shipbuilding Co.
Mary E. Elphicke	4,998	Chicago, Ill.	Federal S. S. Co.

SAILING VESSEL.

Name.	Gross Tons.	Where Built.	Owner.
(Ship) Acme	3,288	Bath, Me.	Standard Oil Co.

The foregoing figures do not include craft without motive power of their own.

The June 15th issue of the Engineer, Cleveland, is a special edition on American stationary engines. Apparently all the principal types of stationary engines now manufactured and used in this country are shown, with detail drawings illustrating the valve gear and the characteristic features of each type of machine. Altogether there are something like 280 half-tone and line illustrations. There is a comprehensive editorial on "The Selection of Engines," by R. H. Thurston, and, indeed, the whole issue shows evidence of careful preparation. As a reference on stationary steam engines, the issue is one which mechanical engineers will highly appreciate, and reflects great credit on the efficient and enterprising management of the Engineer.

A TOWING FEAT.

The big steel floating drydock building by the Maryland Steel Co., at Sparrows Point, Md., is practically completed. The dock is to be stationed at Algiers, La., and is the largest floating drydock in the world.

Now that it is completed, quite an important problem arises as to how it shall be floated down the Atlantic coast into the Gulf of Mexico and up the Mississippi to Algiers. Over 13,000,000 pounds of steel have been used in its construction, and as it is more than half submerged, the towing of such a vast and unwieldly bulk is a formidable undertaking. The start will be made some time in September, a number of powerful tugs being utilized. Slow progress will no doubt be made on the long trip.

The dock is 525 feet long, 100 feet wide across the entrance with a depth of 28 feet over the sill. It has a lifting capacity of 15,000 tons, and on emergency its high decks will give it additional power up to 18,000 tons. The contract calls for placing the dock in position at Algiers, so that the towing of the structure through the Atlantic and the Gulf will be made at the risk of the contractors.

MICHIPICOTEN HARBOR.

W. B. Rosevear, general manager of the Algoma Central Railway Co., furnishes the following information relating to Michipicoten harbor:

Four steamers, each drawing 17 feet 6 inches of water, moved 30 cargoes of ore from the dock last season without any difficulty. With the exception of the rock near the pier head, the harbor space has been dredged to 20 feet. It is expected that the rock will be entirely removed before June 30, 1901. The Canadian government has arranged to build a light-house this year on Gros Cap point. A small light will be maintained on Gros Cap point from the opening of navigation until the light-house is erected. The railway company will maintain, also, a floating light to mark a shoal on the western side of the harbor entrance. According to the chart furnished, a light is now shown on the western of the two islands at the eastern side of entrance to the harbor. A light is also shown at the southern corner of the freight shed on the outer end of the commercial pier.

Throughout the present season of navigation the Algoma Central Railway Co. will exhibit a fixed white light on Mamainse point, in Rousseau's house or on one of his buildings. This point is called Coppermine point, the name Manainse being given to the point to the northward, thus reversing the position of the two points as named by the Canadian authorities.

VESSELS CLASSED.

Vessels classed and rated this week by the American Bureau of Shipping, New York, in the "Record of American and Foreign Shipping," are as follows:

Screw steamer Monterey, screw steamer Apache, screw steamer Idler, screw steamer Lyra, ship Acme, barge Sagua, barge Kimberton, and barkentine Nineveh.

A TRUSCOTT BOAT

SIMPLE, SAFE, RELIABLE, SPEEDY.

It may be possible to build better and safer boats but it hasn't been done yet.

We send a completely illustrated cata'ogue and price list f ee, which tells you all about boats and

WHY TRUSCOTT BOATS EXCEL.

Truscott Boat Mfg. Co.,
ST. JOSEPH, MICH.

Pintsch Gas Lighted Buoys.

Adopted by the English, German, French, Russian, Italian and United States Light-House Departments for channel and harbor lighting. Over 1,000 gas buoys and gas beacons in service.

Burn Continuously

from 80 to 365 days and nights without attention, and can be seen a distance of six miles. . . . . .

Controlled by

THE SAFETY CAR HEATING AND LIGHTING CO.

160 Broadway, New York City.

ASTRONOMICAL DATA FOR JULY.

Astronomical data for July, 1901, furnished the MARINE RECORD by the Washburn observatory:

Mercury has ceased to be visible as an evening star and will pass through inferior conjunction July 12th. After this date it will rise before the sun and may be seen as a morning star, the last week of the present month, as the planet approaches greatest elongation west. Venus is becoming conspicuous as the brilliant evening star. The planet may be seen low in the northwestern sky after sunset and it sets at nearly the same point in the horizon as the sun. Mars is past its favorable season for observation, but the planet is still visible in the evening as it sinks toward the west point of the horizon. The most conspicuous planet at the present time is Jupiter, which appears as a brilliant star in the southeastern sky in the early evening and reaches the meridian far south some time before mid-night. The planet is followed by the next largest member of the solar system, Saturn, which appears as a bright star east and a little north of Jupiter, but far less brilliant.

The times of sunrise and sunset for the month, at Milwaukee are as follows:

	SUNRISE.	SUNSET.
July 1	4:16	7:34
July 11	4:22	7:31
July 21	4:30	7:24
July 31	4:40	7:15

The times of the moon's phases are:

Full moon	July 1	5:18 p. m.
Third quarter	July 8	9:20 p. m.
New Moon	July 15	4:10 p. m.
First quarter	July 23	7:58 a. m.
Full Moon	July 31	4:34 a. m.

The principal fixed stars visible during the month in the evening hours are:

To the west: Arcturus and Spica. Near the meridian: Antares. To the east: Vega and Altair.

VISIBLE SUPPLY OF GRAIN.

As compiled for THE MARINE RECORD, by George F. Stone, Secretary Chicago Board of Trade.

CITIES WHERE STORED.	WHEAT. Bushels.	CORN. Bushels.	OATS. Bushels.	RYE. Bushels.	BARLEY Bushels.
Buffalo	1,610,000	387,000	1,013,000	53,000	156,000
Chicago	5,140,000	5,753,000	3,348,000	172,000	1,000
Detroit	146,000	121,000	.....	2,000	2,000
Duluth	3,679,000	2,459,000	1,167,000	160,000	42,000
Fort William, Ont.	1,134,000	.....	.....	.....	42,000
Milwaukee	399,000	682,000	440,000	6,000	16,000
Port Arthur, Ont.	103,000	.....	.....	.....	.....
Toledo	102,000	606,000	164,000	4,000	.....
Toronto	46,000	.....	1,000	.....	18,000
On Canals	498,000	318,000	390,000	8,000	.....
On Lakes	1,871,000	269,000	130,000	38,000	.....
On Miss. River	33,000	25,000	32,000	.....	.....
Grand Total	30 793,000	15,158,000	10,780,000	619,000	436,000
Corresponding Date, 1900	46 442,000	11,019,000	6,876,000	645,000	570,000
Increase	.....	.....	179,000	60,000	.....
Decrease	2,110,000	2 028,000	.....	.....	48,000

While the stock of grain at lake ports only is here given, the total shows the figures for the entire country except the Pacific Slope.

Captain J. G. Crowley, of Taunton, Mass., and the Fore River Engine and Ship Building Co. have signed a contract for the construction or a seven masted steel schooner. The craft will cost about $250,000.

THE FERRY BOAT SERVICE IN NEW YORK HARBOR.

The ferryboat Southfield, of the Staten Island line, and South Brooklyn, of the 39th Street line, came in collision off Governor's Island early on Saturday morning last, during a fog. About 800 persons were aboard the Staten Island boat and many became panic-stricken.

The recent Northfield ferry disaster was still fresh in the minds of the passengers and it was only after a desperate effort that the crew succeeded in calming them.

The captain of the Southfield, as soon as he saw the danger, swung his boat to starboard and avoided a disaster. The South Brooklyn struck the Southfield a glancing blow which did little damage.

The ferryboats Orange and Hopatcong also came together in the fog shortly afterwards in the North River. Little damage was done. There was a panic among the passengers.

Luckily there was no loss of life in the handling of these four boats, for which all praise must no doubt be credited to the mighty, almighty circumspection of the supervising inspector general of the steamboat inspection service and the ambiguous rulings emanating from that office as handed along and continued through the supervising inspectors to their corps of local inspectors of steamboats.

COMMITTEE ON MILWAUKEE HARBOR IMPROVEMENTS.

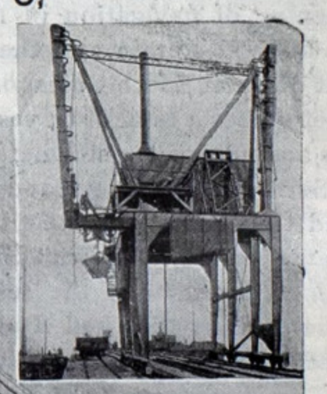
The citizens' committee of ten which will be appointed to take charge of the work of pressing the improvement of Milwaukee's inner harbor has been announced as follows: W. E. Fitzgerald, D. M. Brigham, David Vance, E. A. Uhrig, Ira B. Smith, E. C. Wall, H. J. Hilbert, Frederick Kraus, G. H. Benzenberg and Judge G. H. Noyes.

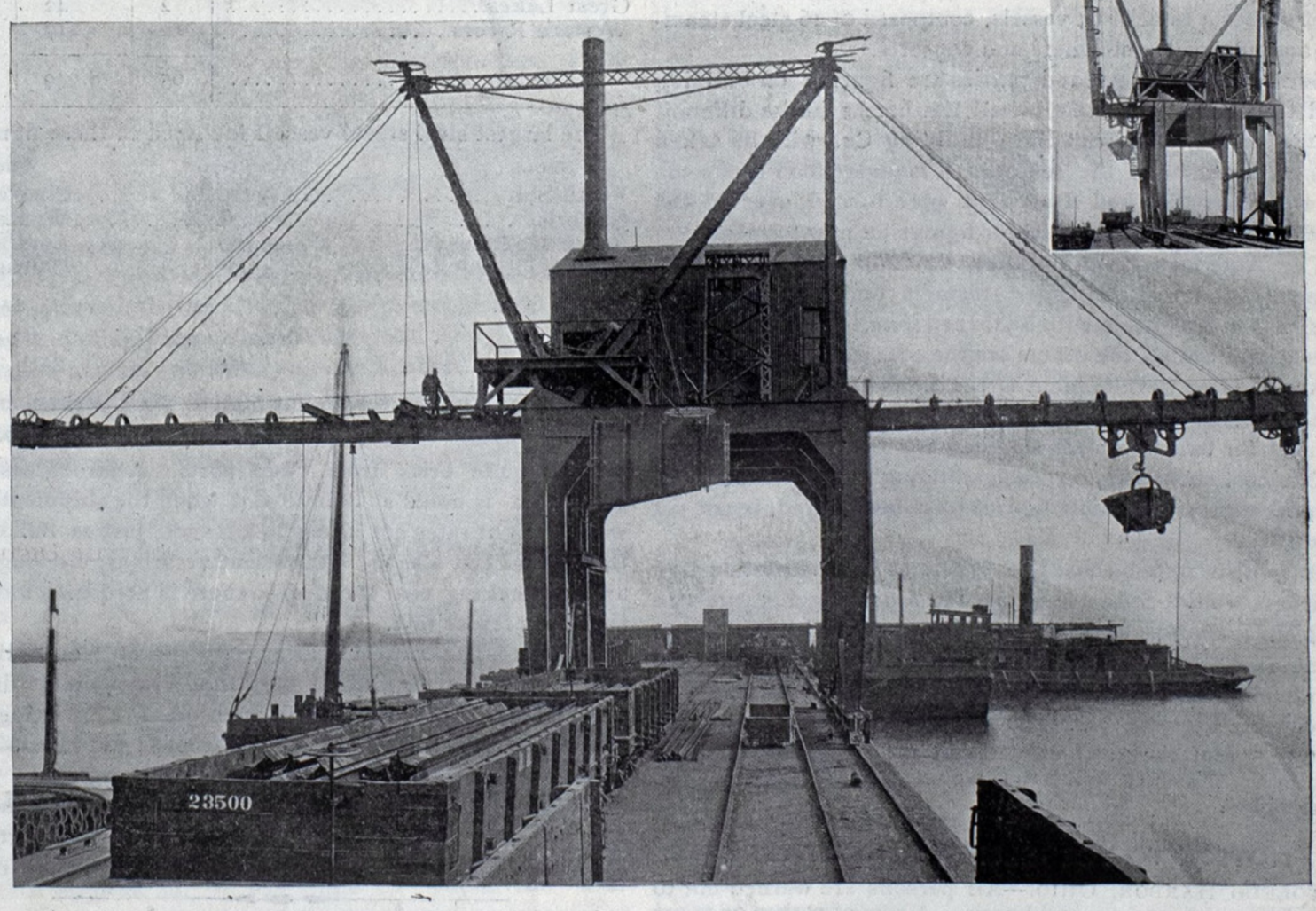
In addition the following city officials have been appointed as auxiliary members of the committee: Mayor Rose, City Comptroller John R. Wolf, President of the Common Council Cornelius Corcoran, City Engineer C. J. Poetsch and Alderman P. J. Grogan.

The city officials were not made direct members of the committee for the reason that they may be compelled to officially pass upon suggestions made by the citizens' committee.

No better selection could possibly have been made, as all of the members are successful business men, having at heart the best interests of the port and an intimate practical knowledge of its present and probable future requirements.

THE BROWN HOISTING MACHINERY CO., CLEVELAND, O.





5-TON BROWN PATENT STEAM GANTRY CRANE, WITH HINGED APRON EXTENSION OVER VESSELS OF 36 FEET.
Very High Speeds.

Pennsylvania Railroad, Pier J, Jersey City, N. J., for handling general merchandise, etc., from vessel to cars and vice versa. Length of pier, 1,000 ft. Width, 35 feet. Crane straddles two tracks, with a third track outside of legs, to allow of handling long material, such as rails, lumber, etc. All operating machinery is mounted in house on machine, and takes up no pier space.

NOTICE TO MARINERS.

UNITED STATES OF AMERICA—NORTHERN LAKES AND RIVERS—MICHIGAN.

TREASURY DEPARTMENT,
OFFICE OF THE LIGHT-HOUSE BOARD,
WASHINGTON, D. C., June 26, 1901,

BANK POINT BEACON LIGHT STATION.—Notice is hereby given that, on or about July 6, 1901, a fixed red lens-lantern light will be established, 13¼ feet above lake level, on the structure recently erected in 9 feet of water on the point of the shoal extending ¾ mile to the southward from Bank Point, Muskegon Lake, easterly side of Lake Michigan.

The light will illuminate 242° of the horizon to the southward of S. W. ¼ S. and E. S. E. ¾ E. (bearings from a vessel).

The structure is a cluster of six red piles surmounted by a small rectangular house painted white with red roof, the upper portion facing the channel is glazed.

Bearings and distances of prominent objects from the light will be:

Muskegon Lake Beacon Light, N. 85° W. (W. ½ N.), 1⅞ miles.

Sand hill northwesterly of Bluffton, S. 70° W. (W. S. W. ¼ W.), 1⅞ miles.

Bearings are true and given approximately; miles are statute miles.

HEAD OF ST. MARYS RIVER RANGE LIGHT STATION.—Notice is hereby give that o or about July 8, 1901, the following described range lights will be established at Birch Point, southerly side of St. Marys River, to guide through the head of the river from the range line marked by St. Marys River Upper Range Lights to Whitefish Bay.

Front Light, a fixed white lens-lantern light, 53 feet above lake level, on a white, square, pyramidal, skeleton iron tower, with a white daymark of horizontal slats, at the water's edge near the extreme end of the westerly projection of Birch Point.

The approximate geographical position of the light, as taken from Chart No. 3 of the St. Marys River, Survey of the Northern and Northwestern Lakes, is:

Latitude, North, 46° 26′ (03″); Longitude, West, 84° 31′ (17″).

Round Island Old Light-House, N. N. E. ¾ E., ¾ mile.

St. Marys River Upper Range Front Light-House, E. N. E. ⅛ E., 1 1-16 miles.

Southeasterly end of Bay Mills Wharf, W. by S., 2½ miles.

Rear Light, a fixed white lens-lantern light, 78 feet above lake level, on a white, square, pyramidal, skeleton iron tower with a white daymark of horizontal slats, about 970 feet S. 40° 55′ E. (E. S. ⅜ S.) in rear of the preceding.

The approximate geographical position of the light, as taken from the above-named chart, is:

Latitude, North, 46° 25′ (55″); Longitude, West, 84° 31′ (07″).

Bearings are true and given approximately; miles are statute miles.

By Order of the Light-House Board:

N. H. FARQUHAR,
Rear-Admiral, U. S. Navy, Chairman.
LIGHT-HOUSE ESTABLISHMENT.

OFFICE OF THE LIGHT-HOUSE INSPECTOR, 11TH DISTRICT.
DETROIT, MICH., June 27, 1901.

Notice is hereby given that Rains Dock Gas Buoy No. 18, Sailors' Encampment, St. Marys River, Mich., was damaged by a raft on the 27th instant, and until further notice no light will be shown from this buoy; also that Duluth Harbor Basin Post Light No. 1, Duluth Harbor, Minn., was carried away by a tug on the 25th instant.

These lights are not now shown, but will be relighted as soon as practicable, of which due notice will be given.

By order of the Light-House Board.

J. C. WILSON,
Commander, U. S. N.,
Inspector 11th District.

SUN'S AMPLITUDES.

The following approximate amplitudes of the Sun's rising or setting will be given each week in this column during the season of navigation. A second bearing may be taken by compass at sunset, by reversing the east bearing given for the nearest latitude, as the change in declination for a few hours makes but a slight difference in the true bearing of the Sun's setting. The bearing may be taken when the Sun's center is on the horizon, rising or setting. The elements which may be obtained by taking these amplitudes are the quantities known as local attraction, variation and deviation, or the total difference between compass and true, or geographical bearings.

LAKE ERIE AND S. END LAKE MICHIGAN, LAT. 42° N.

Date.	Amplitude.	Bearing P'ts.	Bearing Comp.
July 5	E. 32° N.	= N. 5⅛ E.	= N. E. by E. ⅛ E.
July 8	E. 31° N.	= N. 5¼ E.	= N. E. by E. ¼ E.
July 12	E. 30° N.	= N. 5⅜ E.	= N. E. by E. ⅜ E.

LAKE ONTARIO, S. END HURON AND CENTRAL PORTION LAKE MICHIGAN, LAT. 44° N.

Date.	Amplitude.	Bearing P'ts.	Bearing Comp.
July 5	E. 33° N.	= N. 5 E.	= N. E. by E.
July 8	E. 32° N.	= N. 5⅛ E.	= N. E. by E. ⅛ E.
July 12	E. 31° N	= N. 5¼ E.	= N. E. by E. ¼ E.

N. END LAKES HURON AND MICHIGAN, LAT. 46° N.

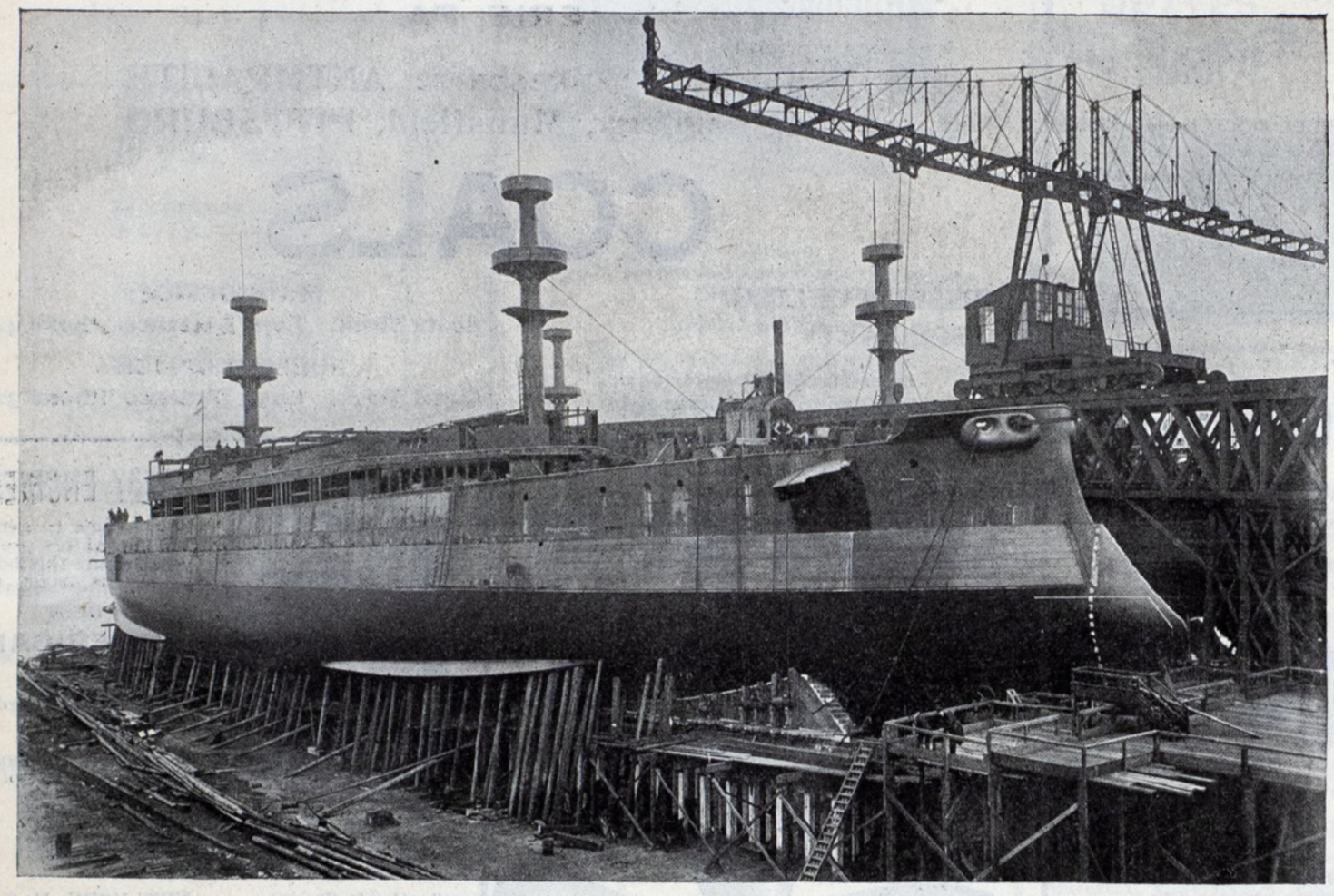
Date.	Amplitude.	Bearing P'ts.	Bearing Comp.
July 5	E. 34° N.	= N. 5 E.	= N. E. by E.
July 8	E. 33° N.	= N 5 E.	= N. E. by E.
July 12	E. 33° N.	= N. 5 E.	= N. E. by E.

LAKE SUPERIOR, LAT. 48° N.

Date.	Amplitude.	Bearing P'ts.	Bearing Comp.
July 5	E. 36° N.	= N. 4¾ E.	= N. E. ¾ E.
July 8	E. 35° N.	= N. 4⅞ E.	= N. E. ⅞ E.
July 12	E. 34° N.	= N. 5 E.	= N. E. by E.

With a compass correct magnetic, the difference between the observed and true bearing or amplitude will be the variation for the locality. Should there be any deviation on the course the vessel is heading at the time of taking the bearing, the difference between the observed and the true amplitude after the variation is applied will be the amount of deviation on that course If the correct magnetic bearing is to the right of the compass bearing, the deviation is easterly, if to the left, the deviation is westerly.

THE BROWN HOISTING MACHINERY CO., CLEVELAND, O.



BROWN PATENT ELECTRIC BALANCED CANTILEVER SHIPBUILDING CRANE.
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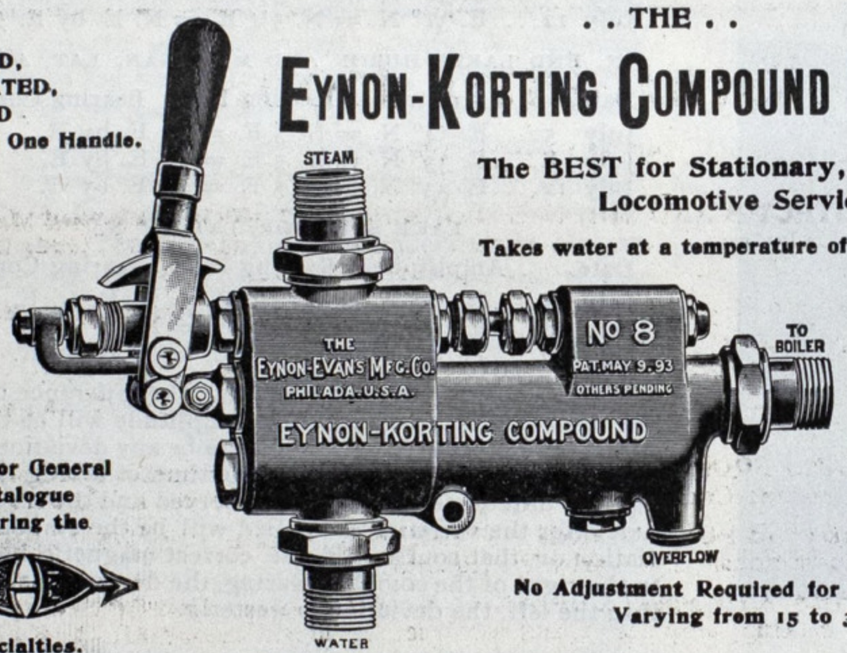

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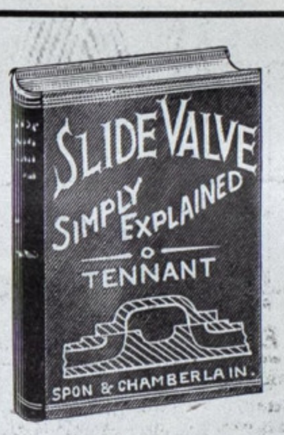

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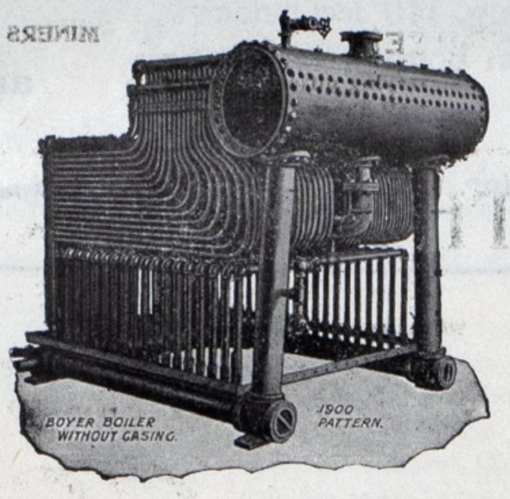

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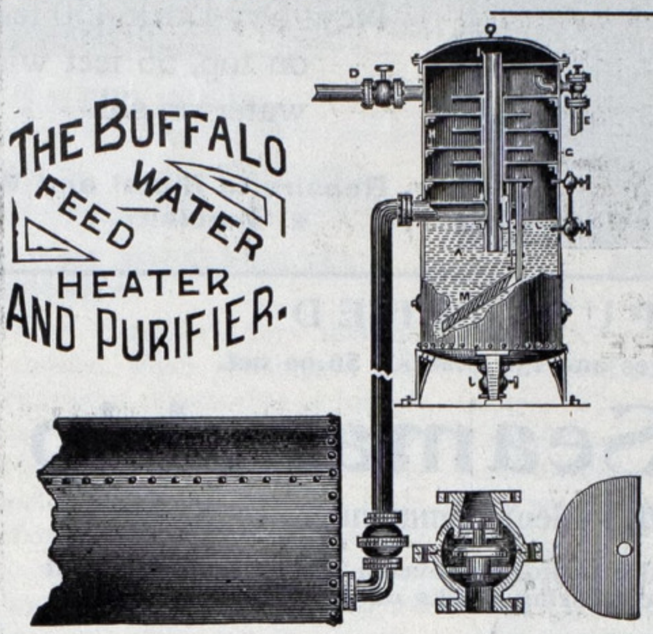

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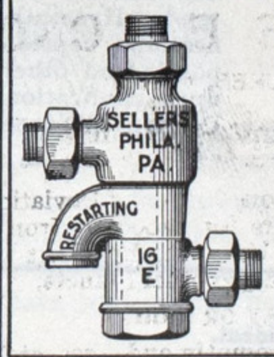

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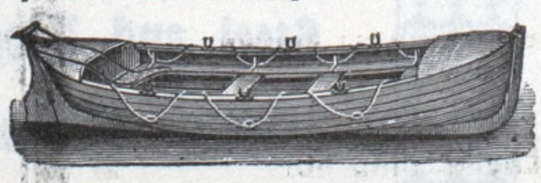

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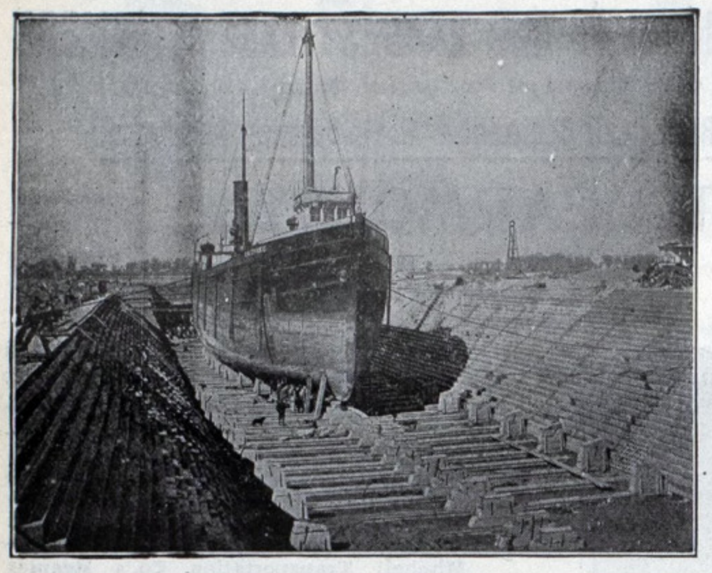

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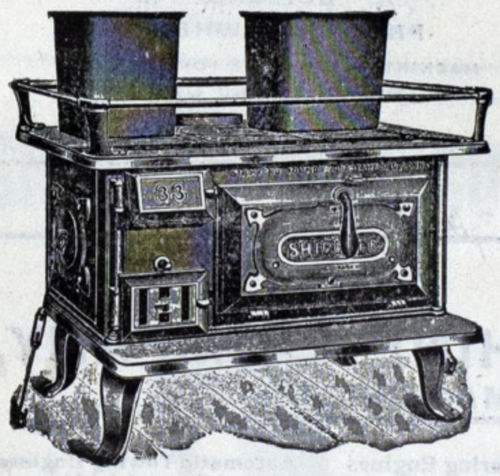

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